

REMARKS

Claims **1-10, 13-20, 23-30, 33-45** and **51-65** are pending in the application.

Claims **1-10, 13-20, 23-30, 33-45** and **51-65** stand rejected.

Claims **15, 24, 26-30, 33-34, 43, 53, 55** and **63** have been amended. No new subject matter has been added.

Claim **66** has been added. No new subject matter has been added.

Claim Objections

Claims 26-30, 33-34, 43, 53, and 63 are objected to for the informality of reciting “storage medium.” Applicants have amended the dependent claims to now recite “non-transitory storage medium.” Accordingly, this objection is believed to be overcome.

Rejection of Claims under 35 U.S.C. §112

Claims 15-20, 23-24, 42, 52, 57, and 62 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse this rejection in view of the present amendments to independent Claim 15. Applicants respectfully submit that the Examiner’s concerns are addressed thereby. Applicants therefore respectfully request the Examiner’s reconsideration and withdrawal of the rejection to Claim 15 and all claims depending therefrom.

Rejection of Claims under 35 U.S.C. §103

Claims 1-10, 13-20, 23-30, 33-45, and 51-60 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Saksio, U.S. Patent Publication No. 2004/0105390 (“Saksio”), in view of Hamami, U.S. Patent No. 5,959,972 (“Hamami”). Applicants respectfully traverse this rejection.

The Office Action asserts that elements of Hamami’s Figure 2 are purportedly equivalent to elements of Claim 1, such as Hamami’s main link 68 being purported equivalent to the

claimed first link, ATM switch #1 and Station #1 being purportedly equivalent to the claimed upstream portion of the communications network, Station #2 being purportedly equivalent to the claimed downstream portion of the communications network, and ATM switch #2 being purportedly equivalent to the claimed network element. *See* Office Action, p. 3. The Office Action asserts that, since “coupled” does not mean directly connected to, a port can be coupled to a link through another port, where Port 1 on Hamami’s ATM switch #2 could be considered to be coupled to link 112 (to Station #2) via Port 0. *Id.* The Office Action concocts this scenario in order to cite Hamami’s purported “re-enabling” of Port 1 to teach the claimed second port’s re-enabling, since the Office Action recognizes that Port 0 is not disclosed as being “re-enabled.” *See* Office Action, pp. 3-4.

However, combining Saksio with Hamami, as posited by the Office Action (or in any other manner), fails to teach the claimed limitations. Saksio’s switch SW7 has ports coupled to up-links (connections to devices upstream of Saksio’s switch) and down-links (connections to devices downstream of Saksio’s switch). *See* Saksio ¶¶ [0018], [0028], Fig. 1. Saksio’s switch must differentiate between up-links and down-links in order to propagate link-down state to hosts downstream from Saksio’s switch to make the hosts aware that a link is not in use anymore to carry traffic. *Id.* If critical up-link LSW7 fails, all down-links are set in the link-down state. *Id.* While the Office Action is correct that the claimed “coupled” does not necessarily mean “directly connected,” the cited sections of Saksio show that the switch ports that are directly connected to the down-links are declared as non-functional. *Id., see also* Saksio ¶ [0037] (PHY devices directly coupled to the down-link are set in the down state), Fig. 2a. Thus, if Saksio’s switch needs to set a down-link in the link-down state, the switch must do so using the port directly connected to that down-link.

However, the combination of Saksio and Hamami would result in a switch that functioned contrary to Saksio’s teachings. If Saksio’s up-link port were purportedly coupled to a down-link via that down-link’s directly connected port according to the Office Action’s interpretation of Hamami’s Port 1 coupled to link 112 via Port 0, Saksio’s switch could not purportedly disable the down-link. Saksio’s switch is not cognizant of using an up-link port to set a down-link in the link-down state (correlated to the claimed disabling by the Office Action). *See, e.g.*, Saksio ¶¶ [0018], [0028], [0037], Fig. 1. As discussed above, if Saksio’s switch needs to set a down-link in the link-down state, the switch must do so using the port directly connected

to that down-link. Even in light of the purported combination, nowhere is there shown, taught, or suggested in either reference of their combination any way of doing so via an up-link somehow coupled to the down-link port. Further, Applicants respectfully note that there is no showing, teaching, or suggestion that Saksio's up-link port might somehow be disabled, and certainly not in any manner comparable to that claimed. *See, e.g.,* Saksio ¶¶ [0018], [0028] (if up-link LSW7 fails, down-links are set in link-down state). Accordingly, the combination of Saksio and Hamami fails to teach the claimed disabling of a port of the network element that is coupled to a downstream second link, as claimed.

Further, per the claims, the port that is disabled is the same port that is re-enabled. *See, e.g.,* Claim 1. If Saksio's down-link port is purportedly disabled, then a port on Hamami's ATM switch #2 (correlated to the claimed network element by the Office Action) in the same orientation must be re-enabled in order to teach the claims. Port 0 of Hamami's switch appears to be in a similar "down-link" orientation, being directly connected to link 112 (correlated to the claimed downstream second link by the Office Action), but fails to teach the claimed re-enabling. *See* Office Action, pp. 2-3. The Office Action attempts to remedy this lack of disclosure by asserting that Port 1 of Hamami's ATM switch #2 purportedly teaches the claimed port. *See* Office Action, pp. 3-4, 9-10. However, the use of Hamami's Port 1 in this manner is contrary to Saksio's orientation, and would result in the purported disabling of a port in the down-link orientation and the re-enabling of a port in the up-link orientation. Thus, the combination of Saksio and Hamami posited by the Office Action fails to teach the claimed disabling and re-enabling of the same port. Accordingly, the combination of Saksio and Hamami, alone or in permissible combination, fail to teach both the claimed acts of disabling a port of the network element and re-enabling the same port of the network element.

Accordingly, the cited sections of Saksio and Hamami, alone or in combination, fail to teach the limitations of Claim 1. For similar reasons, the cited references also fail to teach the limitations of independent Claims 15, 25, 35, and 38. Applicants therefore respectfully submit that independent Claims 1, 15, 25, 35, and 38, and all claims depending therefrom, are in condition for allowance. Applicant therefore respectfully requests the Examiner's reconsideration and withdrawal of the rejection to these claims and an indication of the allowability of same.

PATENT

Notwithstanding the foregoing, Applicants have added Claim 66 to recite limitations that are not taught or fairly suggested by the cited references. Claim 66 provides for the claimed port of the network element to be directly connected to the second link between the network element and the downstream portion of said communications network. For reasons similar to those discussed above, the cited sections of Saksio and Hamami fail to teach the claimed act of re-enabling a port that is directly connected to a downstream link, as claimed. Accordingly, Applicants respectfully submit that newly added claim 66 is patentably distinguishable over the cited references.

Claims 61-65 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Saksio in view of Hamami and further in view of Gai, U.S. Patent No. 6,535,491 (“Gai”), and Hebert, U.S. Patent No. 6,728,780 (“Hebert”). Applicants respectfully traverse this rejection.

As a matter of clarification, Applicants note that Figure 1 is not a virtual LAN as asserted by the Office Action, but is instead a computer network that may be segregated into a series of network groups. *See* Gai 15:48-49.

The Office Action asserts that the cited sections of Gai purportedly teach the claimed second port of the network element being disabled as a result of the second port being associated with the virtual network. *See* Office Action pp. 30-31. However, the cited sections of Gai fail to disclose disabling a port as a result of that port being associated with the virtual network. *See, e.g.*, Gai 15:48-65, Figs. 3D and 3E. This is not surprising because earlier sections of Gai only describe blocking a port based on a determination made using the spanning tree algorithm employed in Gai. *See* Gai 2:56-57 (“Ports not included within the spanning are placed in a blocked state.”) and 5:31-34 (“The network preferably includes a plurality of devices executing the spanning tree algorithm so as to elect a root and place the ports of the devices in either a forwarding or blocked state.”). Thus, while a port may be associated with a virtual network in Gai’s system, the port is only blocked in response to Gai’s spanning tree algorithm. The cited sections of Hebert fail to provide any disclosure that could be used to somehow provide the requisite disclosure of a port being disabled as a result of the port being associated with a virtual network. *See, e.g.*, Hebert 11:49-12:10, Fig. 9. This is not surprising because Hebert fails to even mention the use of a virtual network in the cited sections. *Id.* Accordingly, as the cited

sections of Gai and Hebert fail to show, teach, or suggest a port being disabled as a result of the port being associated with a virtual network, Gai and Hebert (even taken with Saksio and Hamami), fail to make obvious the claimed invention.

The Office Action also asserts that the cited sections of Hebert purportedly teach the claimed second port being disabled as a result of a bandwidth between the upstream portion of the communications network and the network element falling below a predetermined threshold as a result of the failure of the first link. *See* Office Action, p. 32. Applicants note that the claimed second port is coupled to a second link between the second port of said network element and a downstream portion of the communications network. *See e.g.*, Claim 1, as amended. Notwithstanding other infirmities, the cited sections of Hebert would have to show that a port coupled to a downstream link is disabled as a result of the upstream link's bandwidth falling below a predetermined threshold as a result of the failure on the first link. However, the cited sections of Hebert fail to disclose such disabling. *See, e.g.*, Hebert 11:49-12:10, Fig. 9. The cited sections of Hebert disclose a trunk connection comprising connections 810A-810D. *See* Hebert 11:49-56, Fig. 9. Hebert's connections are in parallel and are connecting to the same portion of the purported network. *See, e.g.*, Hebert Fig. 9. Thus, Hebert's connections comprise links in the same upstream direction (upstream being away from the host, as one of skill will appreciate). *Id.* The cited sections of Hebert fail to disclose a downstream link or a port coupled to such a downstream link, which is not surprising considering that Hebert's failover mechanism is present on a host (the furthest point downstream). *See* Hebert Fig. 9 (Host 802). Accordingly, the cited sections of Hebert fail to disclose the claimed second port, which is disabled as a result of a bandwidth between the upstream portion of the communications network and the network element falling below a predetermined threshold as a result of the failure of the first link.

For at least these reasons, the cited sections of Saksio, Hamami, Gai and Hebert, alone or in permissible combination, fail to teach the limitations of Claim 61. For similar reasons, the cited sections also fail to teach the limitations of Claims 62-65. Further, Applicants respectfully note that Claims 61-65 are dependent on otherwise allowable Claims 1, 15, 25, 35, and 38 (discussed above). As such, Applicants respectfully submit that these Claims are in condition for allowance. Applicants therefore respectfully request the reconsideration and withdrawal of the rejections to these claims and an indication of allowability of same.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5084.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicants hereby petition for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

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